REMARKS

Claims 1-13 and 13-32 are pending in the present application. In the above amendments, claims 1, 7 and 15-19 have been amended, and new claim 33 has been added. Therefore, after entry of the above amendments, claims 1-13 and 15-33 will be pending in this application. Applicants believe that the present application is now in condition for allowance, and prompt and favorable action is respectfully requested.

Claim Rejections – 35 USC § 112

Claims 6, 16, 18 and 23 are rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The rejections under 35 USC § 112 are respectfully traversed, and reconsideration is requested.

Specifically, regarding claims 6 and 23, the Examiner requests that Applicants point out support for the claim language in the written description. Applicants direct the Examiner to paragraphs [0065] and [0066] providing support for claims 6 and 23.

For example, the first sentence of paragraph [0066] states, "While in mode 504 the system continues to monitor the SINR of the RAKE output and the equalizer output ($SINR_{EQU}$). When the $SINR_{RAKE}$ is greater than $SINR_{EQU}$, operation transitions to mode 503." According to the embodiment described in this portion of the written description, after a first quality metric of the equalizer processed signals is measured, a next quality metric of the RAKE processed signals is measured. The first quality metric of the equalizer processed signals is compared to the next quality metric of the RAKE processed signals; and when the first quality metric of the equalizer processed signals is less than the next quality metric of the RAKE processed signals disabling the equalizer, as recited in claim 6. The above-mentioned portion of the specification also clearly supports the feature of disabling the equalizer when a channel quality measure of the

estimate from the RAKE receiver is greater than a channel quality measure of an equalized estimate generated by the equalizer, as recited in claim 23.

Regarding claims 16 and 18, the Examiner states that there is no support for "a computer program product" or "code". For support, Applicants note that the original claims recited "A receiver in a wireless communication system, comprising: memory storage device adapted to store computer readable instructions…". As part of the original disclosure, the claims themselves provide adequate support for a computer program product and code (i.e., computer readable instructions). Applicants further submit that one of ordinary skill in the art would clearly understand that a memory storage device is a computer program product and computer readable instructions are code, when interpreted in light of the present specification.

Therefore, reconsideration and withdrawal of the rejections under 35 USC § 112 are respectfully requested.

Claim Rejections – 35 USC § 101

Claims 16 and 18 are rejected under 35 USC § 101 as being directed to non-statutory subject matter. Specifically, the Examiner states that these claims merely recite a computer readable medium, but do not explicitly recite that the code is stored in the computer readable medium. Applicants believe that one of ordinary skill in the relevant art would understand the claims as previously presented recite that the instructions are inherently stored in the computer readable medium.

Nevertheless, claims 16 and 18 are amended herein, for further clarification, to recite that the computer readable medium stores the code therein. As a result, the rejections of claim 16 and 18 are respectfully traversed in light of the foregoing amendments.

Claim Rejections – 35 USC § 103

Claims 1-6, 15, 16, 19-26 and 30-32 are rejected under 35 USC § 103(a), as being unpatentable over Smee et al. (WO 02/09305) (hereinafter "Smee") in view of Porter et al. (U.S. Patent No. 6,167,081) (hereinafter "Porter") and Frank (U.S. 2004/0042537). This rejection is hereby traversed and reconsideration and withdrawal thereof are respectfully requested. The following is a comparison of embodiments of the present invention, as currently claimed, with the applied references.

On page 4 of the Action, the Examiner notes that Smee fails to teach or suggest comparing the first quality metric of the RAKE processed signals to a first threshold value, and when the first quality metric exceeds the first threshold value, enabling an equalizer, as recited in independent claim 1. Thus, Porter is cited as disclosing these features.

Independent claim 1, for example, as amended, recites processing received signals through a RAKE processing element to generate RAKE processed signals; measuring a first quality metric of the RAKE processed signals; comparing the first quality metric of the RAKE processed signals to a first threshold value; and when the first quality metric exceeds the first threshold value, enabling an equalizer to operate concurrently with the RAKE processing element. (See, for support, paragraphs [0061]-[0066] of the present specification).

The cited portions of Porter describe a digital receiver including an equalizing demodulator 46 and a non-equalizing demodulator 48, each capable of processing a baseband signal from line 44 to produce digital bit streams on lines 52 and 54, respectively. The system of Porter includes an output control selector 50 that generates control signals on a line 56, which are used to selectively enable and disable the equalizing demodulator 46 and the non-equalizing demodulator 48, depending on a decision by switch 70. Switch 70 decides which demodulator to use based on preamble BER measurements, as compared to threshold values, and sends a signal

to disable and/or enable the appropriate demodulator based on the comparison. (See column 5, line 53, to column 6, line 35). Therefore, according to the system of Porter, *either* the equalizing demodulator or the non-equalizing demodulator is used at any one time, depending on which demodulator produces a lower BER average, as compared to a given threshold.

Therefore, the receiver system of Porter fails to teach or suggest that when the first quality metric exceeds the first threshold value, the equalizer is enabled to operate **concurrently with the RAKE processing element**, as recited in amended independent claim 1. By operating the equalizer concurrently with the RAKE processing element, embodiments of the present invention are capable of providing a "universal" receiver, since the receiver's performance is optimum over the "universe" of possible channel conditions and rates of channel variation at any one time. (See paragraphs [0042] of the present specification). Conventional receivers, as described by Porter, which are capable of operating one of either an equalizing demodulator **or** a non-equalizing demodulator, do not support the "universe" of possible channel conditions and rates of channel variation at any one time.

It is noted that Frank was not cited as showing these features, nor does it show or suggest such features. Hence even if properly combinable, the combination of Smee, Porter and Frank cannot make obvious the claims of the present invention as none of the cited references suggests concurrent operation of an equalizer and a RAKE processing element when a first quality metric exceeds the first threshold value.

The remaining pending independent claims, as amended herein, recite features similar to those described above for independent claim 1. Thus, for at least the reasons provided herein, it is respectfully submitted that all of the independent claims patentably distinguish over the cited references, alone or in combination. The pending dependent claims inherit the patentability of their respective base claim and are therefore patentably for at least the reasons provided above.

On page 12 of the Action, claims 18 and 27-29 are rejected under 35 USC § 130(a) as being unpatentable over Smee in view of Porter, or in view of Porter and Frank and further in view of Cheng-Quispe et al. (Re. 33,380). Cheng-Quispe et al. does not disclose the features of determining whether to enable the equalizer, to operate concurrently with the RAKE processing element, based on the comparison.

Independent claim 18 has been amended to recite determining whether to enable the equalizer, to operate concurrently with the RAKE processing element, based on the comparison. Therefore, independent claim 18 is patentable over the cited references for at least the reasons discussed above.

Claims 27-29 depend from independent claim 19, which, as stated above, patentably distinguishes over the prior art. Therefore, claims 27-29 patentably distinguish over the prior art for at least the reasons provided above.

Claim Rejections – 35 USC § 102

Claims 7-13 and 17 are rejected under 35 USC § 102(b), as being anticipated by Smee. This rejection is hereby traversed and reconsideration and withdrawal thereof are respectfully requested.

Independent claims 7 and 17 are amended herein to recite determining whether to enable the equalizer, to operate concurrently with the RAKE processing element, based on the comparison. Therefore, the arguments above are asserted for independent claims 7 and 17 as well and, thus, it is respectfully submitted that claims 7 and 17 patentably distinguish over the prior art. Dependent claims 8-13 inherit the patentability of claim 7.

New Independent Claim 33

New independent claim 33 recites processing received signals through only a RAKE processing element to generate RAKE processed signals; comparing a quality metric of the RAKE processed signals to a threshold value; and powering an equalizer to process the received signals concurrently with the RAKE receiver, when the quality metric exceeds the threshold value.

Therefore, the foregoing arguments are asserted for new independent claim 33, and it is respectfully submitted that new independent claim 33 patentably distinguishes over the cited references for at least the reasons provided herein. In addition, according to Porter, both the equalizing demodulator and the non-equalizing demodulator process the signal before the comparison takes place to determine which device to operate. Thus, Porter does not teach or suggest processing received signals through only a RAKE processing element to generate RAKE processed signals; and powering an equalizer to process the received signals concurrently with the RAKE receiver, when the quality metric exceeds the threshold value, as recited in new independent claim 33.

CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: August 13, 2007

By: /Albert J. Harnois, Jr./
Albert J. Harnois, Jr., Reg. No. 46,123
858.651.4368

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502